



Information Hyperlinked
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Symbol	Name	Synonyms	Organism
RPS6	ribosomal protein S6	40S ribosomal protein S6, OK/SW-cl.2, Phosphoprotein NP33	Homo sapiens
WikiGenes	edit this page new		
UniProt	P62753, A2A3P7, A2A3P5		
IntAct	P62753	more than 1,500 organisms. 80,000 genes. 15 million sentences. ...always up to date - every day.	
OMIM	150460		
NCBI Gene	6194		
NCBI RefSeq	NP_001001		
NCBI RefSeq	NM_001010		
NCBI UniGene	6194		
NCI-Nature Pathways	P62753		
	Homologues of RPS6 ...		
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Evidence also suggests that [p70S6K](#) **regulates** the translation of tau mRNA by **phosphorylating** the 40S ribosomal protein S6 . [2008]



Ribosomal protein S6 (S6p) is **phosphorylated** by the [p70S6K](#) enzyme in mammals, under mitogen/IGF regulation. [2004]

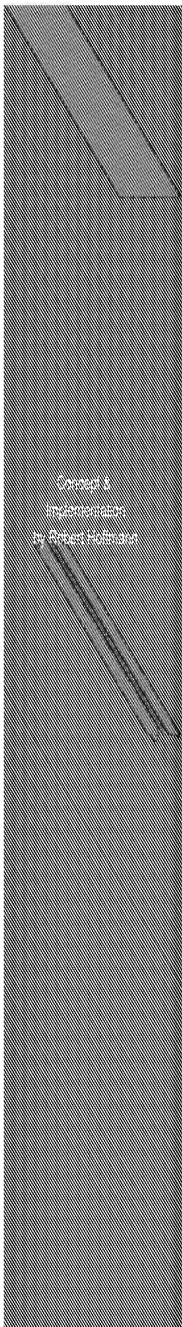


[Phosphorylation](#) of 40S ribosomal protein S6 is **regulated** in part by the mitogen-activated [p70 S6 kinase](#) (p70s6k). [1992]



Drosophila [S6K](#) [2] **expressed** in COS or NIH 3T3 cells **phosphorylates** mammalian RPS6 in a mitogen-dependent wortmannin- and rapamycin-sensitive manner, suggesting that its regulation is similar to mammalian [p70S6K](#) . [1996]





The key **mTOR** effectors of **cell growth** are eukaryotic initiation factor 4E-**binding** protein 1 (4EBP-1) and the ribosomal protein S6 kinase (S6K). [2007]



The activated **mTOR** kinase **phosphorylates/activates** ribosomal protein S6 kinase (p70S6K) and **phosphorylates/inactivates** eukaryotic initiation factor 4E-**binding** protein-1 (4E-**BP1**), resulting in the initiation of translation and **cell-cycle** progression. [2006]



Autocrine tumour growth factor alpha (TGFalpha)/epidermal growth factor receptor (**EGFR**) stimulation in **colorectal carcinoma** (CRC) cells **regulates cell adhesion** and invasiveness via ribosomal protein S6 kinase (S6K) **phosphorylation** in pre-clinical studies. [2007]



The **mTOR** integrates mitogenic signals and intracellular nutrient levels to **activate** eukaryotic initiation factor 4E-**binding** protein-1 and the 40S ribosomal protein S6 kinase, which controls protein translation and **cell cycle** progression. [2005]



Blocking mTOR affects the activity of the 40S ribosomal protein S6 kinase (p70s6k) and the **function** of the eukaryotic initiation factor 4E-**binding** protein-1 (4E-**BP1**), leading to growth arrest in the the **G1 phase** of the **cell cycle**. [2000]



Employing specific inhibitors and docking-site mutants of growth factor receptors, recent studies have indicated that the insulin-induced increase in 40S ribosomal protein S6 and initiation factor 4E **binding protein 1** (4E-**BP1**) **phosphorylation** is mediated by the mTOR/FRAP-p70s6k **signal transduction** pathway. [1997]



insulin, on the other hand, stimulated protein synthesis (by 30%) and increased p70 ribosomal protein S6 kinase (p70S6K) Thr389, 40S ribosomal protein S6 (rpS6) Ser235/236, rpS6 Ser240/244 and eukaryotic initiation factor-4E-**binding** protein-1 (4E-**BP1**) Thr37/46 **phosphorylation** over basal values. [2008]



Since mTOR activates both the 40S ribosomal protein S6 kinase (p70(s6k)) and the eukaryotic initiation factor 4E-**binding** protein-1 (4E-**BP1**), RAP blocks activation of these downstream signaling elements, which results in **cell cycle** arrest in the G1 arrest. [2003]



A farnesylation-defective mutant of **Rheb** **co-immunoprecipitated** with and **inhibited** B-Raf but did not activate ribosomal protein S6 kinase, indicating that **farnesylation** is not required for B-Raf inhibition by **Rheb** and that B-Raf inhibition and S6 kinase activation are separable activities of **Rheb**. [2004]



Here, we show that **phosphorylation** of **mTOR** and its downstream substrate rpS6 (ribosomal protein S6) are robust biomarkers for the antiproliferative **effect** of **EGFR** inhibitors. [2009]



PI-103 and the **mTOR** inhibitor rapamycin both **inhibited** ribosomal protein S6 **phosphorylation** but there were clear differences in the response of upstream components of the **PI3 kinase** pathway, such as **phosphorylation** of Thr(308)-AKT, that were inhibited by PI-103 but not rapamycin. [2009]




Both PMA and **carbachol** promoted the **phosphorylation** of the ribosomal protein S6 and **activated** an S6 protein kinase in the normal but not in the protein kinase C-deficient cells. [1987]






The decrease in protein synthesis is associated with inhibition of translation initiation factors 4E and 4G and ribosomal protein S6 **under regulatory controls** of intracellular **insulin** signaling and **leucine** concentrations. [2006]



Identification of phosphoprotein NP33  as a nucleus-associated ribosomal S6 protein and its phosphorylation in hematopoietic cells. [1990]







RAS/ERK  signaling promotes site-specific ribosomal protein S6  phosphorylation via RSK  and stimulates cap-dependent translation. [2007]








Ribosomal S6 kinase 2  (S6K2 ) is a recently identified serine/threonine protein kinase that phosphorylates the 40 S ribosomal protein S6  in vitro. [2001]



Furthermore, ribosomal protein S6  (rpS6 ) also interacted with Hsp90  and exhibited a similar effect upon treatment with Hsp90  inhibitors. [2006]




RPS19  depletion produced a reduction in steady-state levels of RPS6  and RPS16  via a post-transcriptional mechanism while the levels of RPL7  and RPL26  were unaltered, indicating that levels of ribosomal proteins are determined by subunit assembly. [2007]





Death-associated protein kinase phosphorylates Mammalian ribosomal protein S6  and reduces protein synthesis. [2006]



In these cells ribosomal protein S6  kinase is activated by EGF, IGF-I, insulin and phorbol 12-myristate 13-acetate (TPA) but not by E2. [1988]



Antigenic reactivity of ribosomal protein S6  and the calcium-binding ATPase  inhibitor protein of mammalian mitochondria. [1991]



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